

ABSTRACT OF DISCLOSURE

A method for detecting an object and/or an object's ambience and/or an object's inner space using a scanning particle trapped within a trapping potential. The trapping potential is configured within a position range defined relative to the object or a reference point in a first position determining stage which is associated with a first order of magnitude. In a second position determining stage, which is associated with an order of magnitude less than that of the first order of magnitude, the scanning particle trapped within the trapping potential moves more or less freely in three-dimensions while scanning subjected to the trapping potential to scan the scan volume. A plurality of scanning particle positions assumed as a consequence of scanning are detected within the scan volume.